

EP application  
„OFDM Diversity Transmission“  
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### Abstract

- 10 In an OFDM transmission a transmission diversity technique is used without orthogonal signalling. The phases of the subcarriers received at the different antenna means (2, 3) are compared by different techniques and then the phases of the signals for different antenna means (2, 3) are adjusted (19) for a subsequent transmission over the OFDM interface. The phase (and optionally amplitude) adjustment is calculated in only one  
15 (transmitting) side and no orthogonal signalling is required. The number of antenna means (2, 3) can be increased as much as necessary to get a sharper beam. The negative effects of fading and interference can be reduced so that on the same time a down link transmission power can be reduced.
- 20 (figure 5)